

# Quick Start Reference Sheet

## Demonstration Program

Supplied with the development system is a demonstration program file that utilizes several devices on the evaluation board. The demonstration program uses the evaluation development board as a standalone platform that is connected to a lab supply and a terminal emulation program. On power up the onboard PROM will configure the FPGA. Upon completion of the configuration the FPGA functionality and input/output signal will activate. A start up serial message will be sent to the terminal port via the RS-232 connection. The LEDs will display a back and forth scanning pattern or 8-bit value corresponding to the current temperature.

### Additional Items Needed:

- Lab power supply, 5.0 volts at 1.5 amps.
- Serial Terminal or Terminal Emulator.
- RS-232 cable

### Demonstration Setup:

- 1) Attach the lab supply to the power connector on the Evaluation Board.
- 2) Attach the serial terminal to the P1 connector of the Evaluation Board.
- 3) Set the Serial Terminal to: 8 data bits, 1 stop , No parity, 9600 baud.
- 4) Verify jumper are NOT installed on JP1,JP2,and JP3.
- 5) Verify JP4 is installed across pins 1 and 2.

#### Power UP:

- 6) Apply power to the Evaluation Board.
- 7) The DONE LED D1 will light on the completion of the download.

#### Reset:

- 8) Press the Soft Reset button SW1 to reset the board.

#### Serial Demo:

- 9) Press the button SW2 to send the startup message.
- 10) The Power up message is displayed on the serial terminal.
- 11) All characters typed should be echoed to the terminal.
- 12) Press the Reset button again to “reset” startup message.

#### LED SCAN:

- 13) Set the dipswitch S1 dip 1 to ON (rocker up).
- 14) The LEDs should be blinking such that the illuminated led should be scanning back and forth through the LED array.

#### TEMPERATURE:

- 15) Set the dipswitch S1 dip 1 to OFF (rocker down).
- 16) The LED should now display the temperature in °C in two's complement binary. See the following table.
- 17) Hold your finger on U5 to change the temperature.

LED Pattern (D9..D2)	Decimal Value (°C)
0111 1000	+120C
0001 1001	+25C
0000 1010	+10C
0000 0000	0C
1111 0101	-10C
1110 0110	-25C
1100 1001	-55C

Temperature Conversion Table